



DATE: 01 October 2015

**Product Identifier**

**SRM Number:** 2973

**SRM Name:** Vitamin D Metabolites in Frozen Human Serum (High Level)

Under the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1200, this Standard Reference Material (SRM) is NOT classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified. There are no hazard pictograms, hazard statements or signal word associated with it. Safety Data Sheet information is not required. This document may be used in conjunction with your hazard communication program.

**Exemption:** 1910.1200(b)(6)(xii). This SRM is a biological material and should be considered a potential biological hazard.

**Description:** This SRM is intended for use as an accuracy control in the critical evaluation of methods for determining the amount-of-substance concentration of vitamin D metabolites in human serum. This SRM can also be used as a quality assurance tool for assigning values to in-house control materials for these constituents. A unit of SRM 2973 consists of one vial of frozen serum containing 25-hydroxyvitamin D [25(OH)D] and 24R,25-dihydroxyvitamin D<sub>3</sub> [24R,25(OH)<sub>2</sub>D<sub>3</sub>]. Measurement of 25(OH)D in serum, the sum of 25-hydroxyvitamin D<sub>2</sub> [25(OH)D<sub>2</sub>] and 25-hydroxyvitamin D<sub>3</sub> [25(OH)D<sub>3</sub>], is generally considered a reliable indicator of vitamin D status. Measurement of 24R,25(OH)<sub>2</sub>D<sub>3</sub> in serum is considered as a catabolism marker and an indicator of kidney disease. The vial of SRM 2973 contains approximately 1 mL of serum.

**Additional Notes for Biomaterials:** SRM 2973 IS INTENDED FOR RESEARCH USE. THIS IS A HUMAN-SOURCE MATERIAL. HANDLE PRODUCT AS A BIOHAZARDOUS MATERIAL CAPABLE OF TRANSMITTING INFECTIOUS DISEASE. The supplier of the serum has reported that each donor unit of serum used in the preparation of this product has been tested by an FDA-approved method and found non-reactive/negative for hepatitis B surface antigen (HbsAg), human immunodeficiency virus (HIV) 1 and 2 antibodies, and hepatitis C virus (HCV). However, no known test method can offer complete assurance that hepatitis B virus, hepatitis C virus, HIV, or other infectious agents are absent from this material. Accordingly, this human blood-based product should be handled at the Biosafety Level 2 or higher as recommended for any potentially infectious human serum or blood specimen by the Centers for Disease Control and Prevention (CDC) Office of Safety, Health, and Environment and the National Institutes of Health (NIH). See Certificate of Analysis for storage and use instructions.

**Disposal:** SRM 2973 components and derived solutions should be disposed of in accordance with local, state, and federal regulations.

**Transport Information:** This material is not regulated by the U.S. Department of Transportation (DOT) and/or International Air Transportation Association (IATA).

**Disclaimer:** This document was prepared carefully, using current references. Users of this SRM should ensure that this document and the corresponding Certificate of Analysis in their possession are current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail [srmmsds@nist.gov](mailto:srmmsds@nist.gov); or via the Internet at <http://www.nist.gov/srm>.